

CLAIM AMENDMENTS

Please amend the claims as described below. In accordance with 37 CFR §1.121, a complete listing of all claims in the application is provided below. The status of each claim is indicated in the parenthetical expression adjacent to the corresponding claim number.

Claims 1-8 (Canceled).

- 1 9. **(Currently Amended)** A microelectromechanical device comprising:
2 a substrate;
3 a mechanical structure disposed over the substrate, wherein at least a portion of the
4 mechanical structure is disposed in a chamber;
5 a periphery area disposed over the substrate, wherein the periphery area includes a
6 plurality of gaps therein; and
7 a thin film encapsulation structure, disposed over the mechanical structure and the
8 periphery area, to partially define and seal a the chamber.

- 1 10. **(Previously Presented)** The device of claim 9 wherein the thin film
2 encapsulation structure includes first and second encapsulation layers.

- 1 11. **(Currently Amended)** The device of claim 10 wherein the first encapsulation
2 layer ~~is comprised of~~ includes polycrystalline silicon, porous polycrystalline silicon,
3 amorphous silicon, silicon carbide, silicon nitride, silicon/germanium, germanium, or gallium
4 arsenide.

1 12. **(Currently Amended)** The device of claim 10 wherein the second
2 encapsulation layer ~~is comprised of~~ includes polycrystalline silicon, porous polycrystalline
3 silicon, amorphous silicon, germanium, silicon/germanium, gallium arsenide, or silicon
4 carbide.

1 13. **(Previously Presented)** The device of claim 9 wherein the mechanical
2 structure includes plurality of fixed electrodes, wherein the fixed electrodes include a
3 plurality of gaps therein.

1 14. **(Previously Presented)** The device of claim 9 wherein the mechanical
2 structure includes plurality of anchor regions, wherein the anchor regions include a plurality
3 of gaps therein.

1 15. **(Currently Amended)** The device of claim 9 wherein the mechanical structure
2 is a resonator including at least one fixed electrode, ~~and an~~ an anchor region, and at least one
3 moveable electrode that is physically connected to ~~an~~ the anchor region and adjacent to
4 the fixed electrode, and wherein the fixed electrode and the anchor region include a
5 plurality of gaps.

1 16. **(Currently Amended)** A microelectromechanical device comprising:
2 a substrate;
3 a mechanical structure disposed over the substrate wherein the mechanical
4 structure includes moveable and fixed electrodes;

5 a periphery area disposed over the substrate;
6 a getter area, disposed in predetermined portions of the periphery area and the
7 fixed electrodes;
8 a chamber, wherein the mechanical structure, the periphery area and the getter area
9 are at least partially disposed in the chamber and wherein the getter area is exposed to
10 fluid in the chamber; and
11 a thin film encapsulation structure, disposed over the mechanical structure, the
12 periphery area and the getter area, wherein the encapsulation seals the chamber.

1 17. (Previously Presented) The device of claim 16 wherein the getter area
2 includes gaps in portions of the periphery area and the fixed electrodes.

1 18. (Previously Presented) The device of claim 16 wherein the getter area is
2 capable of capturing impurities, atoms or molecules that are out-gassed from materials
3 contained within the chamber.

1 19. (Previously Presented) The device of claim 16 wherein the mechanical
2 structure is a resonator.

1 20. (Previously Presented) The device of claim 19 wherein the thin film
2 encapsulation structure includes first and second encapsulation layers.

1 21. **(Currently Amended)** The device of claim 20 wherein the first encapsulation
2 layer ~~is comprised of~~ includes polycrystalline silicon, porous polycrystalline silicon,
3 amorphous silicon, silicon carbide, silicon nitride, silicon/germanium, germanium, or gallium
4 arsenide.

1 22. **(Previously Presented)** The device of claim 20 wherein the second
2 encapsulation layer ~~is comprised of~~ includes polycrystalline silicon, porous polycrystalline
3 silicon, amorphous silicon, germanium, silicon/germanium, gallium arsenide, or silicon
4 carbide.

1 23. **(NEW)** A microelectromechanical device comprising:
2 a substrate;
3 a mechanical structure disposed over the substrate, wherein at least a portion of the
4 mechanical structure is disposed in a chamber;
5 a periphery area disposed over the substrate, wherein the periphery area includes a
6 plurality of gaps therein;
7 a thin film encapsulation structure, disposed over the mechanical structure and the
8 periphery area, to partially define and seal the chamber, wherein thin film encapsulation
9 structure includes:
10 a first encapsulation layer comprising polycrystalline silicon, porous
11 polycrystalline silicon, amorphous silicon, silicon carbide, silicon nitride,
12 silicon/germanium, germanium, or gallium arsenide; and

13 a second encapsulation layer, disposed on or over the first encapsulation
14 layer, the second encapsulation layer comprising polycrystalline silicon, porous
15 polycrystalline silicon, amorphous silicon, germanium, silicon/germanium, gallium
16 arsenide, or silicon carbide.

1 24. (NEW) The device of claim 23 wherein the mechanical structure includes
2 plurality of fixed electrodes, wherein the fixed electrodes include a plurality of gaps therein.

1 25. (NEW) The device of claim 23 wherein the mechanical structure includes
2 plurality of anchor regions, wherein the anchor regions include a plurality of gaps therein.

1 26. (NEW) The device of claim 23 wherein the mechanical structure is a resonator
2 including at least one fixed electrode, an anchor region, and at least one moveable
3 electrode that is physically connected to the anchor region and adjacent to the fixed
4 electrode, and wherein the fixed electrode and the anchor region include a plurality of
5 gaps.

1 27. (NEW) The device of claim 23 wherein the microelectromechanical device
2 further includes a getter area, disposed in predetermined portions of the periphery area
3 and the fixed electrodes.

1 28. (NEW) The device of claim 27 wherein the getter area includes gaps in
2 portions of the periphery area and the fixed electrodes.

1 29. **(NEW)** The device of claim 27 wherein the getter area is capable of capturing
2 impurities, atoms or molecules that are out-gassed from materials contained within the
3 chamber.

1 30. **(NEW)** The device of claim 29 wherein the mechanical structure is a resonator.